

2007-02-27 2520-0132PUS1_ST25
SEQUENCE LISTING

<110> MIYAGAWA , Shuji
MATSUNAMI , Katsuyoshi

<120> HLA-E CHIMERIC MOLECULE

<130> 2520-0132PUS1

<140> US 10/578,139
<141> 2006-05-03

<160> 92

<170> PatentIn version 3.4

<210> 1

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 1

Met Val Asp Gly Thr Leu Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 2

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-E

<400> 2

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
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70

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75

80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 3
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-E

<400> 3

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 4
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-E

<400> 4

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

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Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 5

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-E

<400> 5

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 6

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 6

atggtagatg gaaccctcct tttactcctc tcggaggccc tgcccttac ccagacctgg 60

gcg

63

<210> 7

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
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a1 domain of HLA-E

<400> 7
ggctccact cttgaagta tttcacact tccgtgtccc ggccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgttcga caacgacgcc 120
gcgagtcga gatatggtgc gcggcgccg tggatggagc aggagggtc agagtattgg 180
gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 8
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-E

<400> 8
gggtctcaca ccctgcagt gatgcattggc tgcgagctgg ggccgcacag ggcgttcctc 60
cgccggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcgggtgga cacggcggct cagatctccg agcaaaagtc aaatgtgcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga agggaaagga gacgctgctt cacctg 276

<210> 9
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-E

<400> 9
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatgggag 120
ggccataaccc aggacacgga gctcgtggag accaggcctg cagggatgg aacttccag 180
aagtggcag ctgtgggtgt gcctctgga gaggagcaga gatacacgtg ccatgtcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 10
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence

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Transmembrane domain of HLA-E

<400> 10
aagccggctt cccagccccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtgatat ggaggaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggctgag tggagcgaca gtgcccaggg gtctgagtct 180
cacagcttgt aa 192

<210> 11
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 11

Met Val Val Met Ala Pro Arg Thr Leu Phe Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 12
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-G1

<400> 12

Gly Ser His Ser Met Arg Tyr Phe Ser Ala Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Val Glu Gln Glu Gly Pro Glu Tyr Trp Glu Glu Glu Thr
50 55 60

Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala

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85

90

<210> 13
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-G1

<400> 13

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 14
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-G1

<400> 14

Asp Pro Pro Lys Thr His Val Thr His His Pro Val Phe Asp Tyr Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Ile
20 25 30

Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Val Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

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Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Leu Met Leu Arg Trp
85 90

<210> 15
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 15

Lys Gln Ser Ser Leu Pro Thr Ile Pro Ile Met Gly Ile Val Ala Gly
1 5 10 15

Leu Val Val Leu Ala Ala Val Val Thr Gly Ala Ala Val Ala Ala Val
20 25 30

Leu Trp Arg Lys Lys Ser Ser Asp
35 40

<210> 16
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-G1

<400> 16
atgggtgtca tggcgccccc aaccctcttc ctgctgctct cggggccct gaccctgacc 60
gagacctggg cg 72

<210> 17
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain of HLA-G1

<400> 17
ggctcccaact ccatgaggta tttcagcgcc gccgtgtccc ggccggccg cggggagccc 60
cgcttcatcg ccatgggcta cgtggacgac acgcagttcg tgcggttcga cagcgactcg 120
gcgtgtccga gatggagcc gcggcgccg tgggtggagc aggaggggcc agagtattgg 180
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gaagaggaga cacggaacac caaggccac gcacagactg acagaatgaa cctgcagacc	240
ctgcgcggct actacaacca gagcgaggcc	270

<210> 18
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain of HLA-G1

<400> 18	
agtttcaca ccctccagt gatgattggc tgcgacctgg ggtccgacgg tcgcctcctc	60
cgcgggtatg aacagtatgc ctacgatggc aaggattacc tcgcccgtaa cgaggacctg	120
cgctcctgga ccgcagcggta cactgcggct cagatctcca agcgcaagtg tgaggcggcc	180
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga	240
tacctggaga acgggaagga gatgctgcag cgcg	276

<210> 19
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain of HLA-G1

<400> 19	
gaccccccaca agacacacgt gaccaccac cctgtcttg actatgaggc caccctgagg	60
tgctgggccc tgggcttcta ccctgcggag atcatactga cctggcagcg ggatggggag	120
gaccagaccc aggacgtgga gctcgtggag accaggcctg cagggatgg aacttccag	180
aagtgggcag ctgtggtgtt gcctctgga gaggagcaga gatacacgtg ccatgtgcag	240
catgaggggc tgccggagcc cctcatgctg agatgg	276

<210> 20
<211> 123
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain of HLA-G1

<400> 20	
aagcagtctt ccctgcccac catccccatc atgggtatcg ttgctggcct ggttgtcctt	60
gcagctgttag tcactggagc tgcggtcgct gctgtgtgt ggagaaagaa gagctcagat	120
tga	123

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<210> 21
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 21

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 22
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 22

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 23
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
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a2 domain

<400> 23

Ser Ser His Thr Leu Gln Trp Met Ile Gly Cys Asp Leu Gly Ser Asp
1 5 10 15

Gly Arg Leu Leu Arg Gly Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 24

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 24

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

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<210> 25
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 25

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 26
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 26
atggcggtca tggcgccccc aaccctcgtc ctgctactct cggggccct gaccctgacc 60
gagacctggg cg 72

<210> 27
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 27
ggctcccaact ctttgaagta tttccacact tccgtgtccc ggccggccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120
gcgagtccga ggatggtgcc gcggcgccg tggatggagc aggagggtc agagtattgg 180
gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240
ctgcggct actacaatca gagcgaggcc 270

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<210> 28
<211> 276
<212> DNA

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 28
agttcctaca ccctccatgt gatgattggc tgcgacctgg ggtccgacgg tcgcctccctc 60
cgcggttatg aacagttatgc ctacgatggc aaggattacc tcgcccgtaa cgaggacctg 120
cgctccgtga ccgcagcgga cactgcggct cagatctcca agcgcacgt tgaggcggcc 180
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga 240
tacctggaga acgggaagga gatgctgcag cgcg 276

<210> 29
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 29
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctggccccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataaccc aggacacgga gctcgtggag accaggcctg cagggatgg aacttccag 180
aagtgggcag ctgtggtggt gcctctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 30
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 30
aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtatgg gggaaaagggag ggagctactc 120
taaggctgag tggagcaca gtgcccgagg gtctgagtct 180
cacagttgt aa 192

<210> 31
<211> 24

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<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 31

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 32

<211> 90

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 32

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 33

<211> 92

<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 33

2007-02-27 2520-0132PUS1_ST25
Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Asn Val Ala Glu
50 55 60

Gln Arg Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu His Arg
65 70 75 80

Tyr Leu Glu Asn Gly Lys Glu Met Leu Gln Arg Ala
85 90

<210> 34

<211> 92

<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 34

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 35

<211> 63

<212> PRT

<213> Artificial Sequence

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<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 35

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 36

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 36

atggcgtca tggcgcccg aaccctcgtc ctgctactct cggggccct gaccctgacc 60

gagacctggg cg 72

<210> 37

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 37

ggctccact ctttgaagta tttccacact tccgtgtccc ggcccgccg cggggagccc 60

cgtttcatct ctgtgggcta cgtggacgac acccagttcg tgccgttcga caacgacgcc 120

gcgagtcga ggtatggtgcc gcgggcgccg tggatggagc aggagggtc agagtattgg 180

gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240

ctgcgcggct actacaatca gagcgaggcc 270

<210> 38

<211> 276

<212> DNA

<213> Artificial Sequence

2007-02-27 2520-0132PUS1_ST25

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 38

gggtctcaca ccctgcagt gatgcatggc tgcgagctgg ggcccgacag gcgttcctc	60
cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg	120
cgctcctgga ccgcggtgga cactgcggct cagatctcca agcgcaagt g tgaggcggcc	180
aatgtggctg aacaaaggag agcctacctg gagggcacgt gcgtggagtg gctccacaga	240
tacctggaga acgggaagga gatgctgcag cgcgcg	276

<210> 39

<211> 276

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 39

gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg	60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag	120
ggccatacc accacacgga gtcgtggag accaggcctg cagggatgg aacttccag	180
aagtggcag ctgtggtgt gcctctgga gaggagcaga gatacacgtg ccatgtgcag	240
catgaggggc tacccgagcc cgtcaccctg agatgg	276

<210> 40

<211> 192

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 40

aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggttctcctt	60
ggatctgtgg tctctggagc tgtgttgct gctgtat gggaaaagaa gagtcaggt	120
ggaaaaggag ggagctactc taaggctgag tggagcaca gtgcccgagg gtctgagtct	180
cacagcttgt aa	192

<210> 41

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

2007-02-27 2520-0132PUS1_ST25
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 41

Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 42

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 42

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 43

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 43

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

2007-02-27 2520-0132PUS1_ST25
Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Lys Arg Lys Cys Glu Ala Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 44

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 44

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 45

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

2007-02-27 2520-0132PUS1_ST25

<400> 45

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 46

<211> 72

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 46

atggcggtca tggcgccccc aaccctcgtc ctgctactct cgggggccct gaccctgacc 60

gagacctggg cg 72

<210> 47

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 47

ggctcccaact ctttgaagta tttccacact tccgtgtccc ggcccgccg cggggagccc 60

cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgccc 120

gcgagtcgca ggatggtgcc gcggcgccg tggatggagc aggagggtc agagtattgg 180

gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtgaa tctgcggacg 240

ctgcgcggct actacaatca gagcgaggcc 270

<210> 48

<211> 276

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

2007-02-27 2520-0132PUS1_ST25

<400> 48
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga cccgcgggtgga cactgcggct cagatctcca agcgcaagtg tgaggcggcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga aggggaagga gacgctgctt cacctg 276

<210> 49
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 49
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccc aggacacgga gctcgtggag accaggcctg cagggatgg aacttccag 180
aagtgggcag ctgtggtggt gccttctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 50
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 50
aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggttctcctt 60
ggatctgtgg tctctggagc tgtggttgct gctgtat 192
ggaaaaaggag ggagctactc taaggctgag tggagcaca gtgcccaggg gtctgagtct
cacagcttgt aa 180

<210> 51
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 51

2007-02-27 2520-0132PUS1_ST25

Met Val Asp Gly Thr Leu Leu Leu Leu Ser Glu Ala Leu Ala Leu
1 5 10 15

Thr Gln Thr Trp Ala
20

<210> 52

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 52

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 53

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 53

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

2007-02-27 2520-0132PUS1_ST25
Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 54

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 54

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 55

<211> 63

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 55

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
Page 22

1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 56

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 56

atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60

gcg 63

<210> 57

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 57

ggctcccaact ctttgaagta tttccacact tccgtgtccc ggcccgcccc cggggagccc 60

cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120

gcatggccga gatggtgcc gcggcgccg tggatggagc aggaggggtc agagtattgg 180

gaccgggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240

ctgcgcggct actacaatca gagcgaggcc 270

<210> 58

<211> 276

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 58

gggtctcaca ccctgcagtg gatgcattgc tgcgagctgg ggcccgacag gcgcttcctc 60

2007-02-27 2520-0132PUS1_ST25

cgcgggtatg aacagttcg c	ctacgacggc aaggattatc tcaccctgaa tgaggacctg	120
cgctcctgga ccgcggtgga cacggcggct cagatctccg agcaaaagtg taatgtatgcc		180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa		240
tacctggaga aggggaagga gacgctgctt cacctg		276
<210> 59		
<211> 276		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic chimeric sequence		
a3 domain		
<400> 59		
gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg	60	
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag	120	
ggccataccc aggacacgga gtcgtggag accaggcctg cagggatgg aaccttccag	180	
aagtgggcag ctgtggtgtt gccttctgga gaggagcaga gatacacgtg ccatgtcag	240	
catgaggggc tacccgagcc cgtcaccctg agatgg	276	
<210> 60		
<211> 192		
<212> DNA		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic chimeric sequence		
Transmembrane domain		
<400> 60		
aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggttctcctt	60	
ggatctgtgg tctctggagc tgtggttgct gctgtatggat ggaggaagaa gagctcaggt	120	
ggaaaaaggag ggagctactc taaggctgag tggagcgcaca gtgcccaggg gtctgagtct	180	
cacagcttgt aa	192	
<210> 61		
<211> 24		
<212> PRT		
<213> Artificial Sequence		
<220>		
<223> Description of Artificial Sequence: Synthetic chimeric sequence		
Reformed SP		
<400> 61		
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala		
1 5 10 15		

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Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 62

<211> 90

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 62

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 63

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 63

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

2007-02-27 2520-0132PUS1_ST25
Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 64
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 64

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 65
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 65

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
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25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 66
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 66
atggcgtca tggcgcccg aaccctcgac ctgctactct cggggggccct gaccctgacc 60
gagacctggg cg 72

<210> 67
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 67
ggctccact ctttgaagta tttccacact tccgtgtccc ggcccgccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgccgttcga caacgacgcc 120
gcgagtcga ggatggtgcc gcggcgccg tggatggagc aggagggtc agagtattgg 180
gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 68
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 68
gggtctcaca ccctgcagtg gatgcatggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga cccgcgtgga cacggcggct cagatctccg agcaaaagtg taatgatgcc 180

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tctgaggcgg	agcaccagag	agcctacctg	gaagacacat	gcgtggagtg	gctccacaaa	240									
tacctggaga	aggggaagga	gacgctgctt	cacctg			276									
<210> 69															
<211> 276															
<212> DNA															
<213> Artificial Sequence															
<220>															
<223> Description of Artificial Sequence: Synthetic chimeric sequence															
a3 domain															
<400> 69															
gagcccccaa	agacacacgt	gactcaccac	cccatctctg	accatgaggc	caccctgagg	60									
tgctggccccc	tgggcttcta	ccctgcggag	atcacactga	cctggcagca	ggatggggag	120									
ggccataaccc	aggacacgga	gctcgtggag	accaggcctg	caggggatgg	aacttccag	180									
aagtggcag	ctgtggtggt	gcttctgga	gaggagcaga	gatacacgtg	ccatgtcag	240									
catgaggggc	tacccgagcc	cgtcaccctg	agatgg			276									
<210> 70															
<211> 192															
<212> DNA															
<213> Artificial Sequence															
<220>															
<223> Description of Artificial Sequence: Synthetic chimeric sequence															
Transmembrane domain															
<400> 70															
aagccggctt	cccagccac	catccccatc	gtgggcatca	ttgctggcct	ggttctcctt	60									
ggatctgtgg	tctctggagc	tgtggttgct	gctgtat	ggaggaagaa	gagtcaggt	120									
ggaaaaggag	ggagctactc	taaggctgag	tggagcgaca	gtgcccgagg	gtctgagtct	180									
cacagcttgt	aa					192									
<210> 71															
<211> 21															
<212> PRT															
<213> Artificial Sequence															
<220>															
<223> Description of Artificial Sequence: Synthetic chimeric sequence															
SP of HLA-E															
<400> 71															
Met	Val	Asp	Gly	Thr	Leu	Leu	Leu	Leu	Ser	Glu	Ala	Leu	Ala	Leu	
1					5				10				15		
Thr	Gln	Thr	Trp	Ala											
				20											

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<210> 72
<211> 90
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 72

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 73
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 73

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

2007-02-27 2520-0132PUS1_ST25
His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 74
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 74

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 75
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 75

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Lys
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40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
50 55 60

<210> 76

<211> 63

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
SP of HLA-E

<400> 76

atggtagatg gaaccctcct tttactcctc tcggaggccc tggcccttac ccagacctgg 60

gcg 63

<210> 77

<211> 270

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 77

ggctccact cttgaagta tttccacact gccgtgtccc ggcccgccg cggggagccc 60

cgtttcatct ctgtgggcta cgtggacgac acccagttcg tgcgcttcga caacgacgcc 120

gcgagtcga ggttgtgcc gcggcgccg tggatggagc aggaggggtc agagtattgg 180

gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240

ctgcgcggct actacaatca gagcggaggcc 270

<210> 78

<211> 276

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 78

gggtctcaca ccctgcagtg gatgcattggc tgcgagctgg ggcccgacag gcgcttcctc 60

cgcgggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120

cgctcctgga cccgcgtgga cacggcggct cagatctccg agcaaaagtg taatgatgcc 180

tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240

tacctggaga aggggaagga gacgctgctt cacctg 276

2007-02-27 2520-0132PUS1_ST25

<210> 79
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 79
gagccccc aa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg 60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag 120
ggccataccc aggacacgga gctcgtggag accaggcctg cagggatgg aacttccag 180
aagtggcag ctgtggtgt gcctctgga gaggagcaga gatacacgtg ccatgtgcag 240
catgaggggc tacccgagcc cgtcaccctg agatgg 276

<210> 80
<211> 192
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 80
aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct gtttcctt 60
ggatctgtgg tctctggagc tgtggttgt gctgtgatat ggaggaagaa gagctcaggt 120
ggaaaaggag ggagctactc taaggctgag tggagcaca gtgcccgagg gtctgagtct 180
cacagcttgt aa 192

<210> 81
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 81
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1 5 10 15

Leu Thr Leu Thr Glu Thr Trp Ala
20

<210> 82
<211> 90
<212> PRT

2007-02-27 2520-0132PUS1_ST25

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
al domain

<400> 82

Gly Ser His Ser Leu Lys Tyr Phe His Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
50 55 60

Arg Ser Ala Arg Asp Thr Ala Gln Ile Phe Arg Val Asn Leu Arg Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala
85 90

<210> 83

<211> 92

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 83

Gly Ser His Thr Leu Gln Trp Met His Gly Cys Glu Leu Gly Pro Asp
1 5 10 15

Arg Arg Phe Leu Arg Gly Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp
20 25 30

Tyr Leu Thr Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Val Asp Thr
35 40 45

Ala Ala Gln Ile Ser Glu Gln Lys Cys Asn Asp Ala Ser Glu Ala Glu
50 55 60

His Gln Arg Ala Tyr Leu Glu Asp Thr Cys Val Glu Trp Leu His Lys
65 70 75 80

2007-02-27 2520-0132PUS1_ST25
Tyr Leu Glu Lys Gly Lys Glu Thr Leu Leu His Leu
85 90

<210> 84
<211> 92
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 84

Glu Pro Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu
1 5 10 15

Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr
20 25 30

Leu Thr Trp Gln Gln Asp Gly Glu Gly His Thr Gln Asp Thr Glu Leu
35 40 45

Val Glu Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala
50 55 60

Val Val Val Pro Ser Gly Glu Gln Arg Tyr Thr Cys His Val Gln
65 70 75 80

His Glu Gly Leu Pro Glu Pro Val Thr Leu Arg Trp
85 90

<210> 85
<211> 63
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 85

Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile Ala Gly
1 5 10 15

Leu Val Leu Leu Gly Ser Val Val Ser Gly Ala Val Val Ala Ala Val
20 25 30

Ile Trp Arg Lys Lys Ser Ser Gly Gly Lys Gly Ser Tyr Ser Lys
35 40 45

Ala Glu Trp Ser Asp Ser Ala Gln Gly Ser Glu Ser His Ser Leu
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55 60

<210> 86
<211> 72
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
Reformed SP

<400> 86
atggcgtca tggcgcccg aaccctcgac ctgctactct cgggggcct gaccctgacc 60
gagacacctggg cg 72

<210> 87
<211> 270
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a1 domain

<400> 87
ggctccact ctttgaagta tttccacact gccgtgtccc ggcccgccg cggggagccc 60
cgcttcatct ctgtgggcta cgtggacgac acccagttcg tgccgttcga caacgacgcc 120
gcgagtcga ggatggtgcc gcggcgccg tggatggagc aggagggtc agagtattgg 180
gaccggaga cacggagcgc cagggacacc gcacagattt tccgagtcaa tctgcggacg 240
ctgcgcggct actacaatca gagcgaggcc 270

<210> 88
<211> 276
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic chimeric sequence
a2 domain

<400> 88
gggtctcaca ccctgcagtg gatgcattggc tgcgagctgg ggcccgacag gcgcttcctc 60
cgcggtatg aacagttcgc ctacgacggc aaggattatc tcaccctgaa tgaggacctg 120
cgctcctgga ccgcgttga cacggcgct cagatctccg agcaaaaatg taatgatgcc 180
tctgaggcgg agcaccagag agcctacctg gaagacacat gcgtggagtg gctccacaaa 240
tacctggaga agggaaagga gacgctgctt cacctg 276

<210> 89
<211> 276
<212> DNA

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<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
a3 domain

<400> 89

gagcccccaa agacacacgt gactcaccac cccatctctg accatgaggc caccctgagg	60
tgctgggccc tgggcttcta ccctgcggag atcacactga cctggcagca ggatggggag	120
ggccatacccg aggacacgga gctcggtggag accaggcctg caggggatgg aacccctccag	180
aagtgggcag ctgtgggtgt gccttctgga gaggagcaga gatacacgtg ccatgtcag	240
catgaggggc tacccgagcc cgtcaccctg agatgg	276

<210> 90

<211> 192

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic chimeric sequence
Transmembrane domain

<400> 90

aagccggctt cccagccac catccccatc gtgggcatca ttgctggcct ggtttcctt	60
ggatctgtgg tctctggagc tgtggttgct gctgtatggatggaa gagctcagg	120
ggaaaaggag ggagctactc taaggctgag tggagcaca gtgcccagggtctgag	180
cacagcttgt aa	192

<210> 91

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic HLA leader peptide

<400> 91

Val Met Ala Pro Arg Thr Leu Val Leu
1 5

<210> 92

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic HLA leader peptide

<400> 92

Val Met Ala Pro Arg Thr Leu Phe Leu
1 5

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